



National Office of Global Maritime Situational Awareness

The Overall Classification
of this Briefing is:
UNCLASSIFIED

Overview

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How We Got Here...

NSPD-41/HSPD-13

PRESIDENTIAL SIGNATURE 21 DEC 04

Established MSPCC

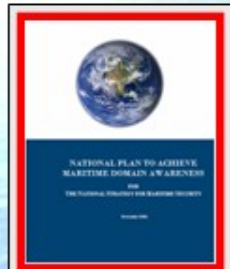
(Maritime Security Policy
Coordination Committee)

NATIONAL STRATEGY FOR MARITIME SECURITY

PRESIDENTIAL SIGNATURE 20 SEP 05

"The National strategy for Maritime Security has mandated an even higher level of interagency cooperation in pursuit of effective MDA."

A Cooperative Strategy for 21st Century Seapower



**National Plan to
Achieve
Maritime
Domain
Awareness
10/05**



**Global
Maritime
Intelligence
Integration
Plan 10/05**



**Maritime
Operational
Threat Response
Plan 10/06**



**International
Outreach and
Coordination
Strategy 11/05**



**Maritime
Infrastructure
Recovery Plan
4/06**



**Maritime
Transportation
System Security
Recommendations
10/05**



**Maritime
Commerce
Security Plan
10/05**



**Domestic Outreach
Plan 10/05**

- National CONOPS
- Interagency Investment Strategy

**A comprehensive
economic stability**

**National Office of Global
Maritime
Situational Awareness
(OGMSA)**

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Vision, Mission, Goals, & Objectives

Vision

A World-Wide Maritime Information Exchange to facilitate user-defined decision making

Mission Statement and Goals

To create a global maritime collaborative information environment through unity of effort across entities with maritime interests. This mission is reflected in the following strategic thrusts:

- Make maritime related information available;
- Facilitate development of a dynamically tailorable, network-centric, virtual information grid.
- Align relevant Policy and Technology.

Strategic Goals & Objectives

- Lead a collaborative effort to ensure access to maritime information and data critical to building the situational awareness component of Maritime Domain Awareness (MDA).
- Develop and recommend information-sharing policies, protocols, and standards across federal, state, local, tribal, private sector, and international partners.
- Create open forums to enhance understanding, encourage global partnerships, develop shared perspectives, and achieve unity of effort in meeting the challenge of developing global maritime situational awareness.



Strategic Objectives

- 1.0 Create MDA Info Enterprise Hubs - (4 - People, Vessels, Cargo, Infrastructure)**
- 2.0 Create MDA Architecture Hub**
- 3.0 Maximize transparency of vessels in the maritime domain**
- 4.0 Identify and encourage strategies that enhance national maritime security, safety, and environment through the use of market drivers.**
- 5.0 Establish OGMSA Office/Staff infrastructure to enable the above**



National Office of GMSA

Mission: Enhance national maritime security, safety, environment, and commerce through optimizing information sharing on the global, federal, maritime, state, local, and tribal levels.

Vision: A World-Wide Maritime Information Exchange to facilitate user-defined decision making.

“Maritime Information flowing to the right people at the right time.”

Values / Guiding Principles:

- Encourage dialogue (information sharing) between countries.
- Increase stability / ability of countries around the world.
- Transparency - promoting culture of information sharing.
- Multilaterally, low barriers to entry, high U.S. support, small fingerprint.
- Maritime security - supporting common opportunities.
- Collaboration / integration - supporting unity of effort.
- Support all MDA customers but security is paramount.

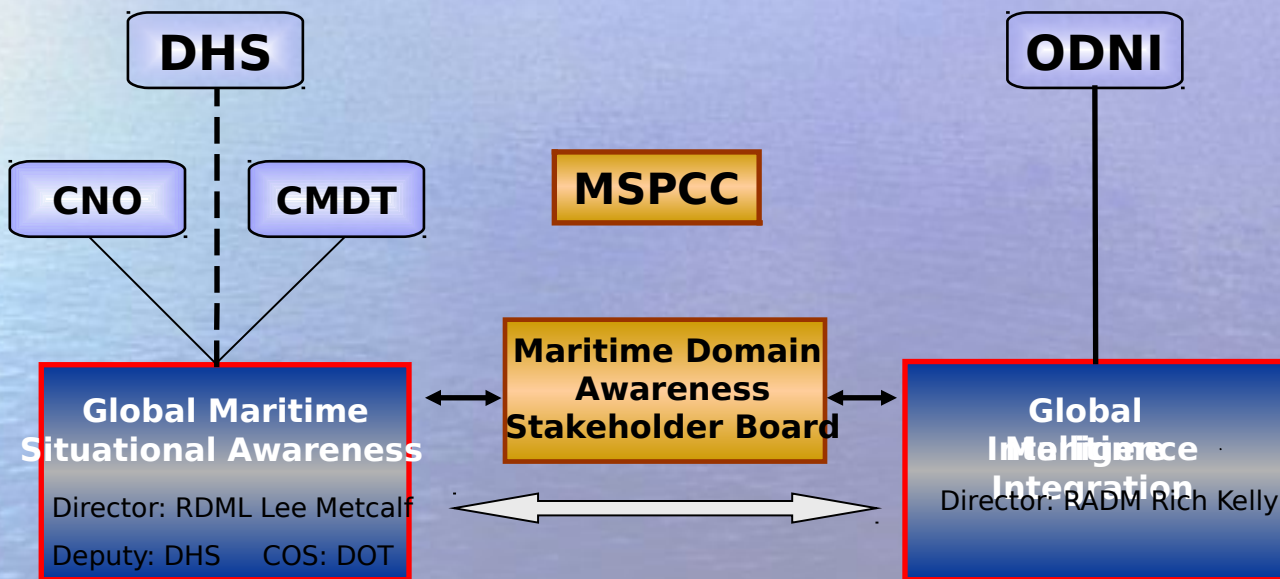
Slogan: A National Office ... Composed of an Interagency Staff ... with a Global Reach

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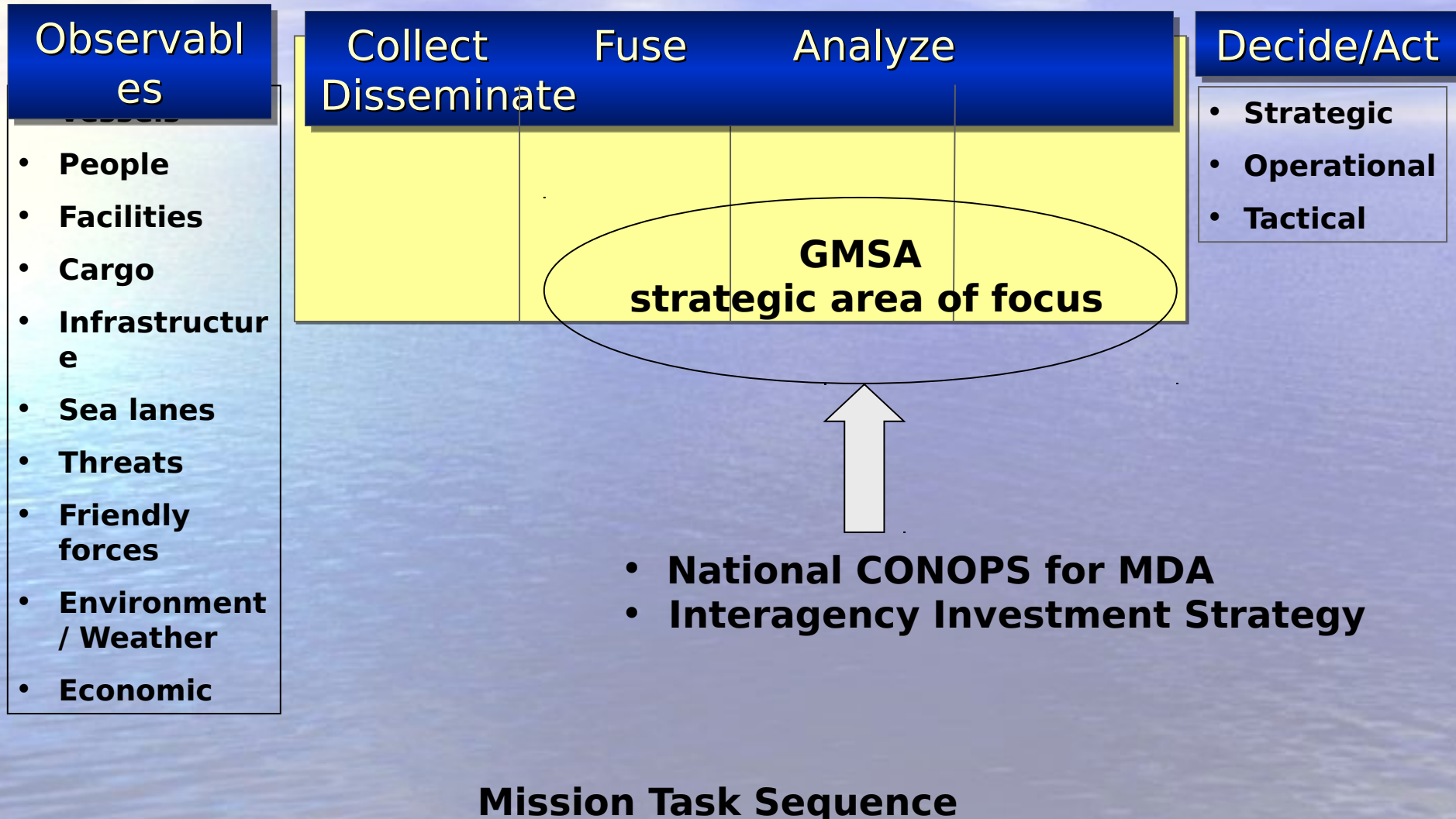
National MDA Structure

A federal, interdepartmental and interagency leadership structure





Maritime Awareness





Collaborative Leadership

**Uncoordinated
MDA
Initiatives**

**National Strategy for Maritime Security
National Plan to Achieve MDA
8 Supporting Plans**

**MDA
Synergy**



**Other
Agencie
s**

State

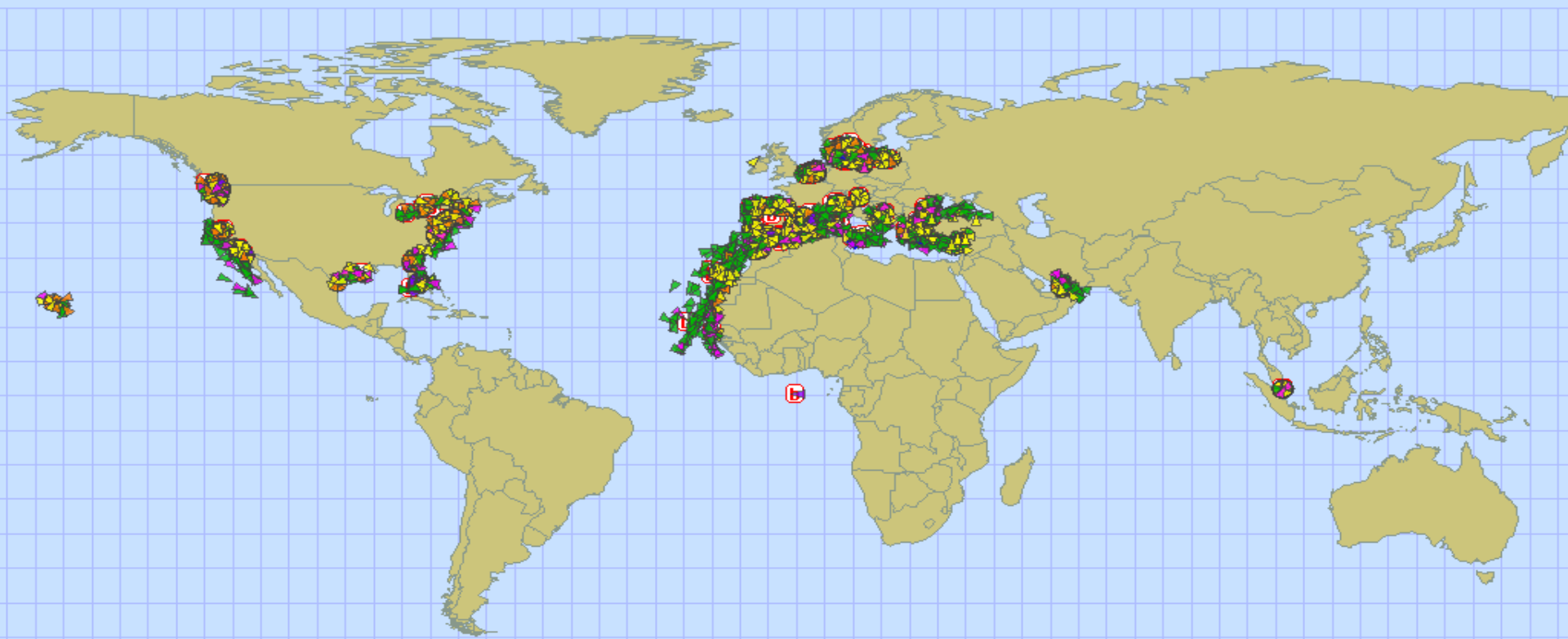
Local

Private

Tribal



AIS Data Sharing Today



GMSA Role in acceleration of Global Information
Sharing
2009 by 2009

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Maritime Security and GMSA

“Key to maritime security and that which is the foundation for maritime security is the awareness of that which is moving above, on, and under the ocean, or maritime domain awareness.

- *What must we do to enhance that?*
- *And what are the initiatives and programs...*
- *that we must pursue collectively, cooperatively, collaboratively to enhance the maritime security of the world?*
- *That is an expanded core capability.”* - Remarks as delivered by Adm.

Gary Roughead, International Sea Power Symposium, 17 October 2007

“Work remains to ensure the long term viability of MSSIS and the unclassified component of Global Maritime Situational Awareness (GMSA)....Over the long term, I believe that an international organization is the right fit to enforce standards governing maritime traffic and information exchange, just as we do in the air.” - Letter from NAVEUR, Adm. Uhlrich, to CNO, Adm. Roughead, 11 October 2007.



Global Maritime Situational Awareness

What it is:

- Global
- Coalition / International
- Joint & Interagency
- Security Partnerships
- Information Sharing
- All Threats
- Origin to Delivery
- A Continual Process

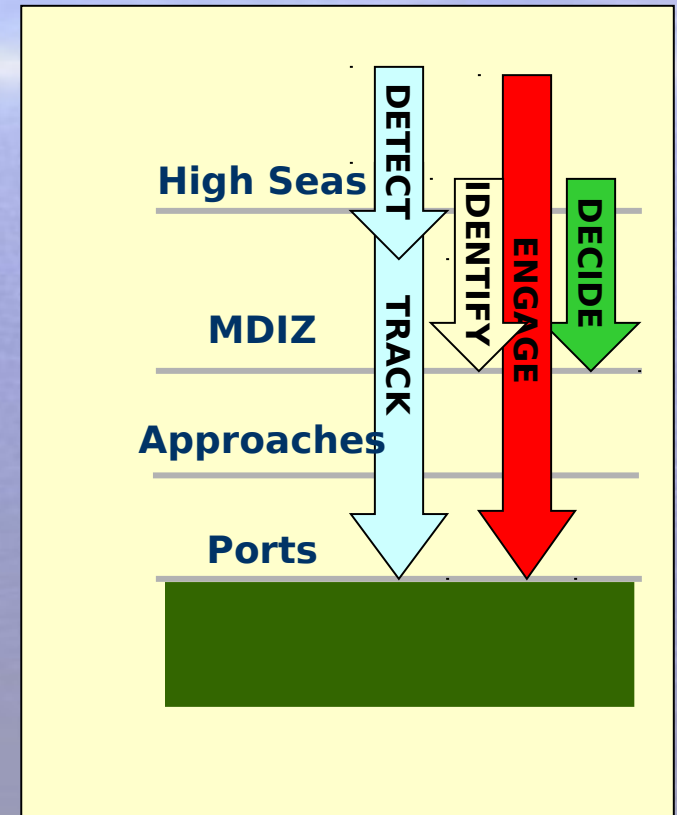
What it isn't:

- Just Homeland
- U.S. Only
- Just Defense
- Just Vessel Tracking
- Just Intelligence
- Just Terrorism
- Just More Sensors
- An End State



CONOPS

MDA will enable a defense in depth that will be capable of supporting interdiction of internal and external threats across a full geographic spectrum at their source... In the U.S. internal and territorial waters, in U.S. maritime approaches, on the High Seas and foreign ports and harbors....



Objective

Detect, deter, and defeat maritime threats

Promote global economic security

Develop World-wide maritime information exchange

Desired Effects

Nations/Agencies seek stability and control in their sovereign waters

Nations/Agencies desire maritime situational awareness

Nations want to be regional leaders for info-sharing

Nations/Agencies desire to enter collaborative maritime info-sharing relationships

Nations/Agencies remove policy barriers to info-sharing

Nations/Agencies develop incentives to participate in info-sharing

Actions

- Create / administer Information Enterprise Hubs
- Create Architecture Hub
 - Promote Stnds & protocols
- Develop / promote info sharing policies
- Promote information sharing initiatives
 - Engage govt/commercial/private

- Promote MDA initiatives
- Monitor implementation of MDA initiatives
- Implement Stakeholder Board
- Create CONOP & Investment Stgy Spirals
- Promote “market drivers” to promote info exchange



Tasks

Data Sharing & Infrastructure

- HUB S/U, implementation, Mgmt
 - Arch
- MSSIS - Tech/Security
- DSCOI
- SECNAV Prototype
- MDA Connectivity II
- Collaborative S/W
- State Fusion Ctrs
 - LINX

Outreach & Coordination

- MSSIS - Marketing
- Stakeholder Board Exec Sec
- SHB Charter
- Oceans US
- Commercial / Intl Outreach
- Conf / Proj Mgmt
- Interagency/COCOM

Administration

- Clearances
- FITREPS/OERs/Evals
- Correspondence
 - Memos, invites, Thank yous
- Facility mgmt
- Resources
- Staff Mgmt (Active, ADSW, Contractor)
- Trip Accounting
- Tickler
- Hail/Farewell - MWR
- Awards

PAO

- Strategic Comms
- Strategic Engagement
- Articles/Press release
- Rumblin / Polaris
- "MDA Earlybird"

Science & Technology

- Coordinate Technology Awareness/ Cross fertilization/C
- ACTD/JCTD Consolidation/Assistance
- Update MDA Technology Roadmap
- Analysis/War game support

Planning & Policy

- MOAs
- MSPCC Prep
- MSWG
- HUB S/U, implementation, Mgmt
 - Info (V,P,C,I)
- Plan Maintenance
 - CONOPS
 - IAIS
- Policy Barriers
 - MDA Connectivity II
 - Prototype
 - MSSIS
 - MDA DS COI
- Assessment/MOP/MOE
- Business Plan / PO A&M
- "911" - Pop-up briefs



Relevance to Navy

OGMSA Roles

- The OGMSA will play a key role in supporting the Navy in its capacity as the Executive Agent for MDA within the Department of Defense
- Director OGMSA (USN Flag) is direct representative for Navy in the Interagency arena as a member of the Maritime Security Policy Coordination Committee (MSPCC).
- Co-Chair Interagency Stakeholder Board

OGMSA and MDA Initiatives

- National CONOPS & Investment Strategy
- Maritime Safety and Security Information System (MSSIS)
- MDA Data Sharing Community of Interest; MDA Connectivity II
- DoN Prototype
- MHQ/MOC, SCC
- Global Maritime Partnerships
- Enterprise Information Hubs
- Architecture Hub

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OGMSA Strategic Engagement

- Navy: SECNAV, FLT's, N1, N2, N6, ONI, ONR, IPO, NWC, NNWC, CNA, SPAWAR
- Joint: OSD, JCS, COCOMS, JIATFs, NATO
- Interagency: NSC, HSC, DoS, DoT, DHS, DoJ, DoC, GMII, MARAD, NOAA, EPA, Volpe
- International: Various
- Commercial: Various commercial agencies/associations

"...U.S. Naval forces will partner with a diverse array of multinational, federal, state, local and private sector entities to ensure freedom of navigation, the flow of commerce, and the protection of ocean resources. Key among those partners, both abroad and at home, is the U.S. Coast Guard. "

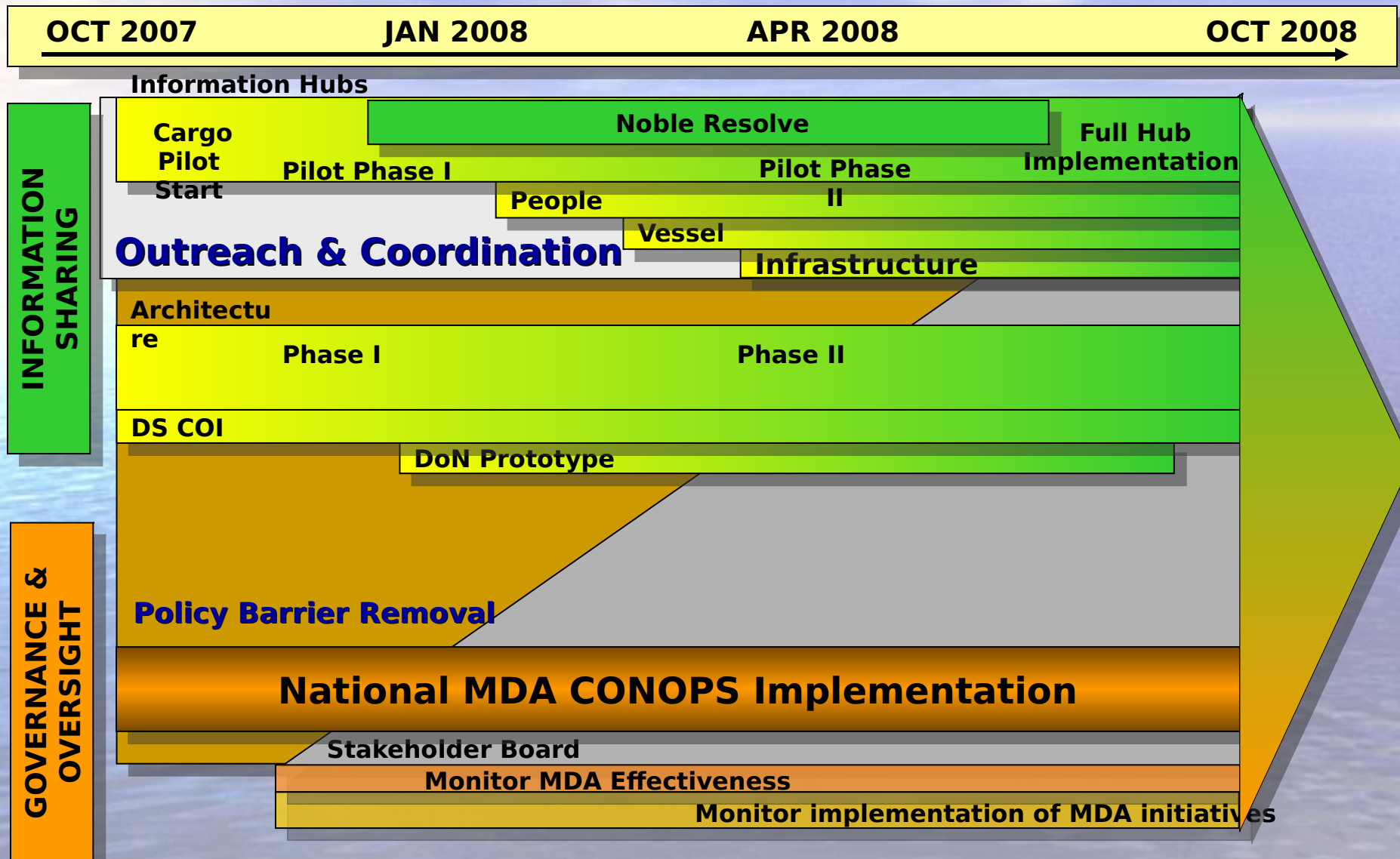
**Naval Operations Concept
2006**



Oct/Mar: Congressional MDA Engagement Plan: OSD, DHS, DoS, ODNI aligned plan



Implementation Timeline



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Priorities

NMP

Information Hubs

Architecture Hub

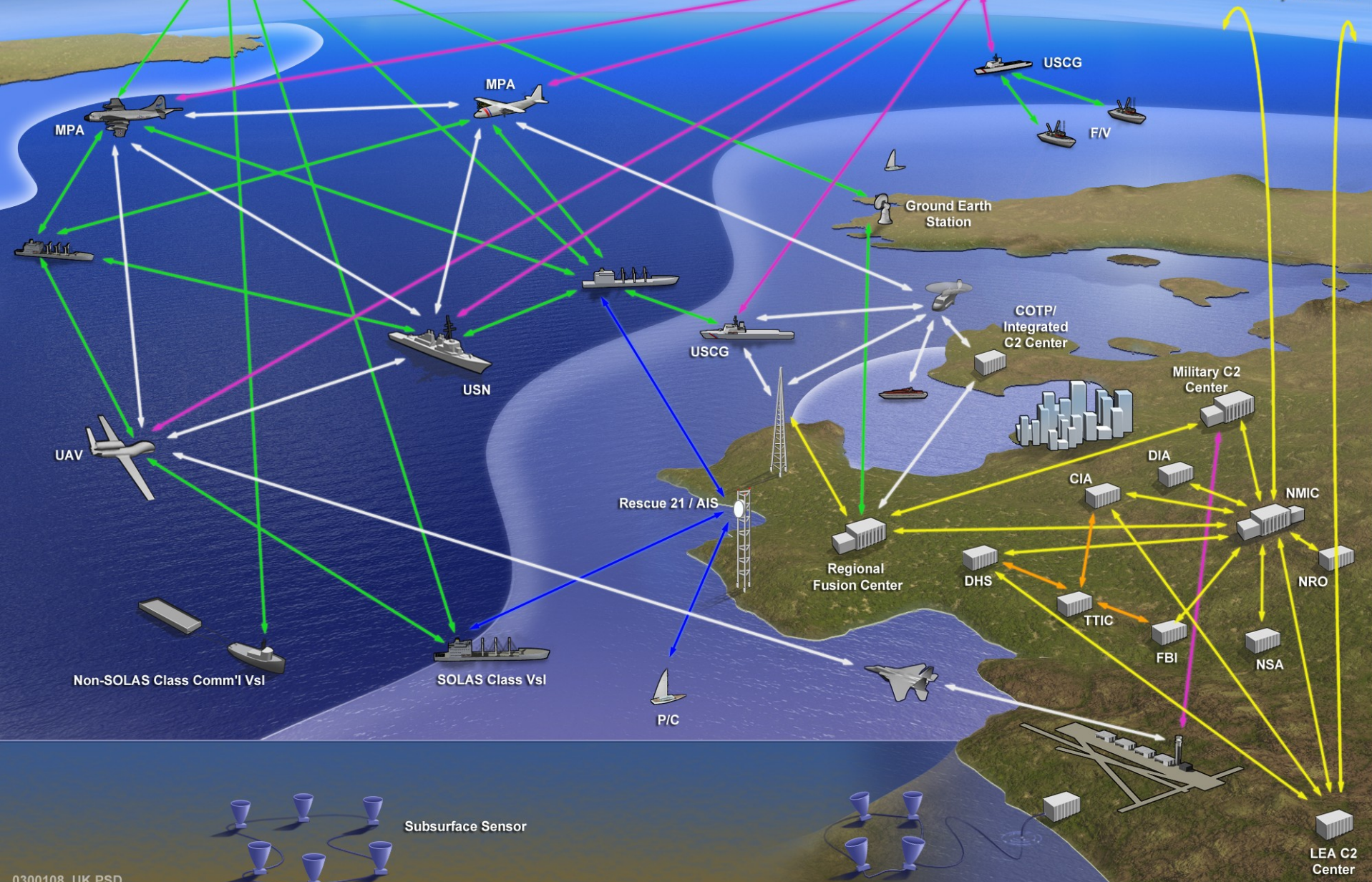
Commercial
Satellite



The Collaborative Information Environment in the Maritime Domain

National
Assets

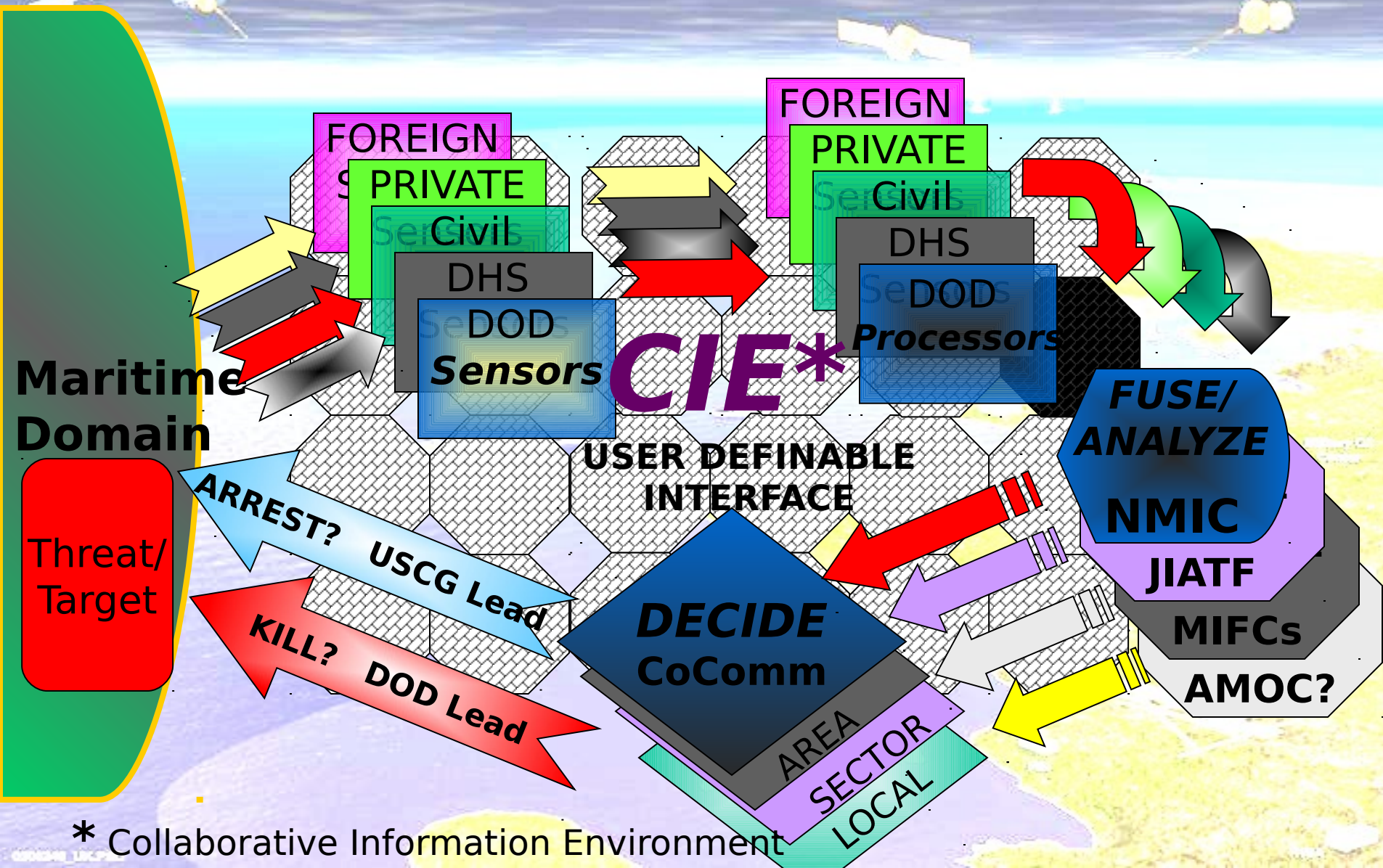
Foreign LE &
Industry Databases



LEA C2 Center



Sense - Decide - Act Cycle





The Information Continuum



WISDOM
UNDERSTANDING
KNOWLEDGE
INFORMATION
DATA



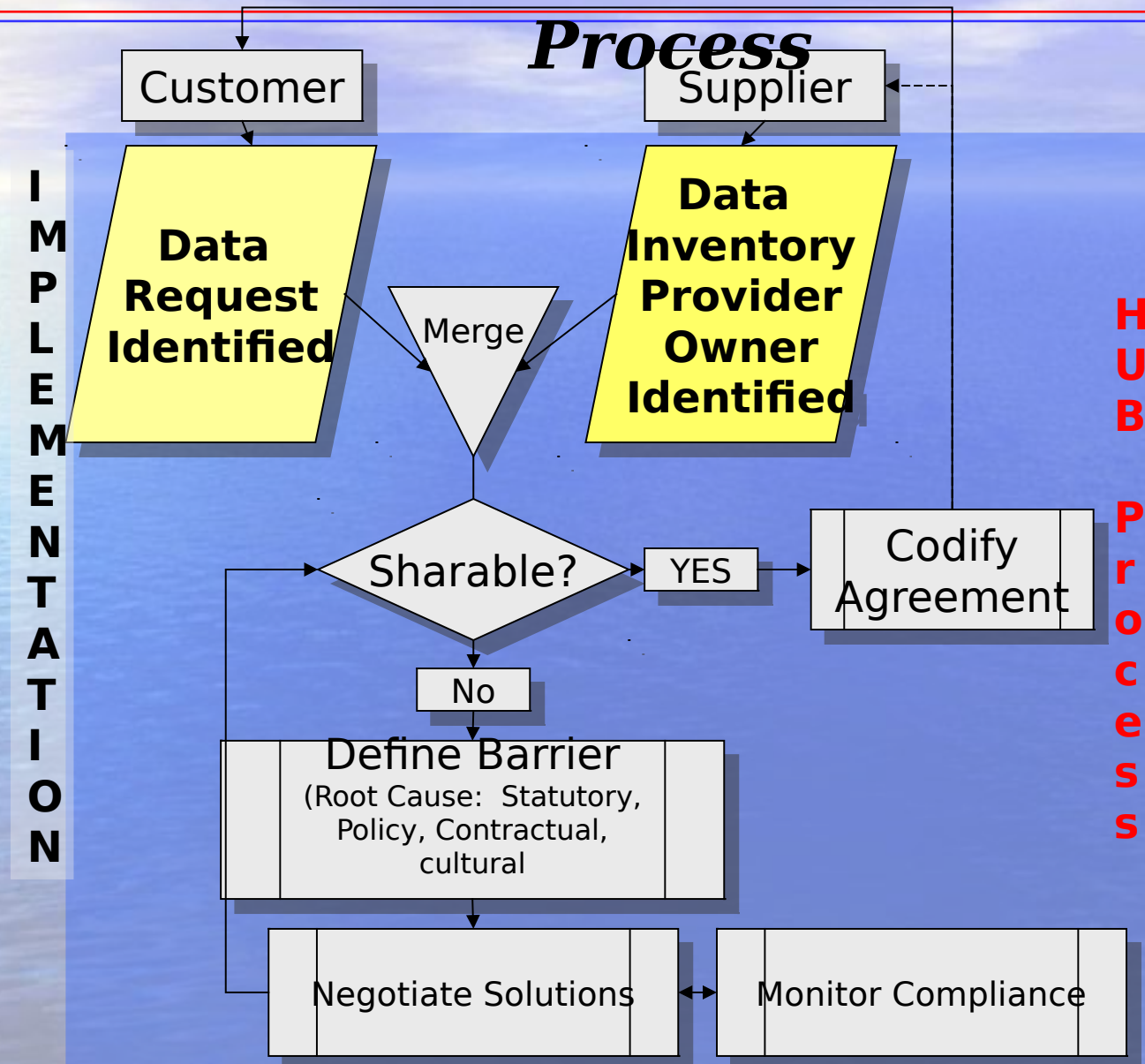
Role of an Enterprise Hub

- The hub lead will act as the single POC for its pillar of information
- The lead will identify SMEs when needed
- Collaborate among themselves
- Facilitate the resolution of technical problems and impediments to sharing
- Make recommendations for improvement to or development of capabilities
- Identify requirements as they apply to their areas of expertise
- Recommend analysis products
- Recommend appropriate information sharing standards



Information Enterprise Hubs

Core Process: Barrier Resolution





MDA Architecture

2006 → 2007 → 2008 → 2009 → 2010

DS COI

DON MDA
Architecture
CFT

CG-6 MDA
Architecture

DOT
Architecture

CIO
DOD
DHS
ODNI

**National
Interagency
OGMSA Managed
Architecture
Enterprise Hub**



Publish

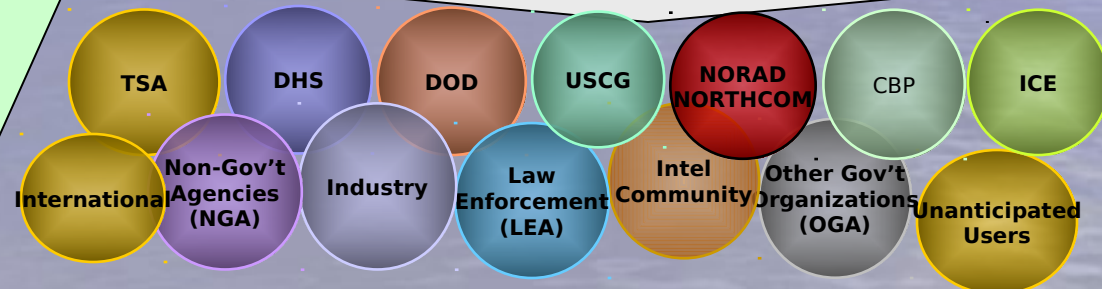
MDA DS Architecture

SOA

UDOP

ABAC

Subscribe



VISION

DRIVERS

FUNDING

POLICY

TECHNOLOGY

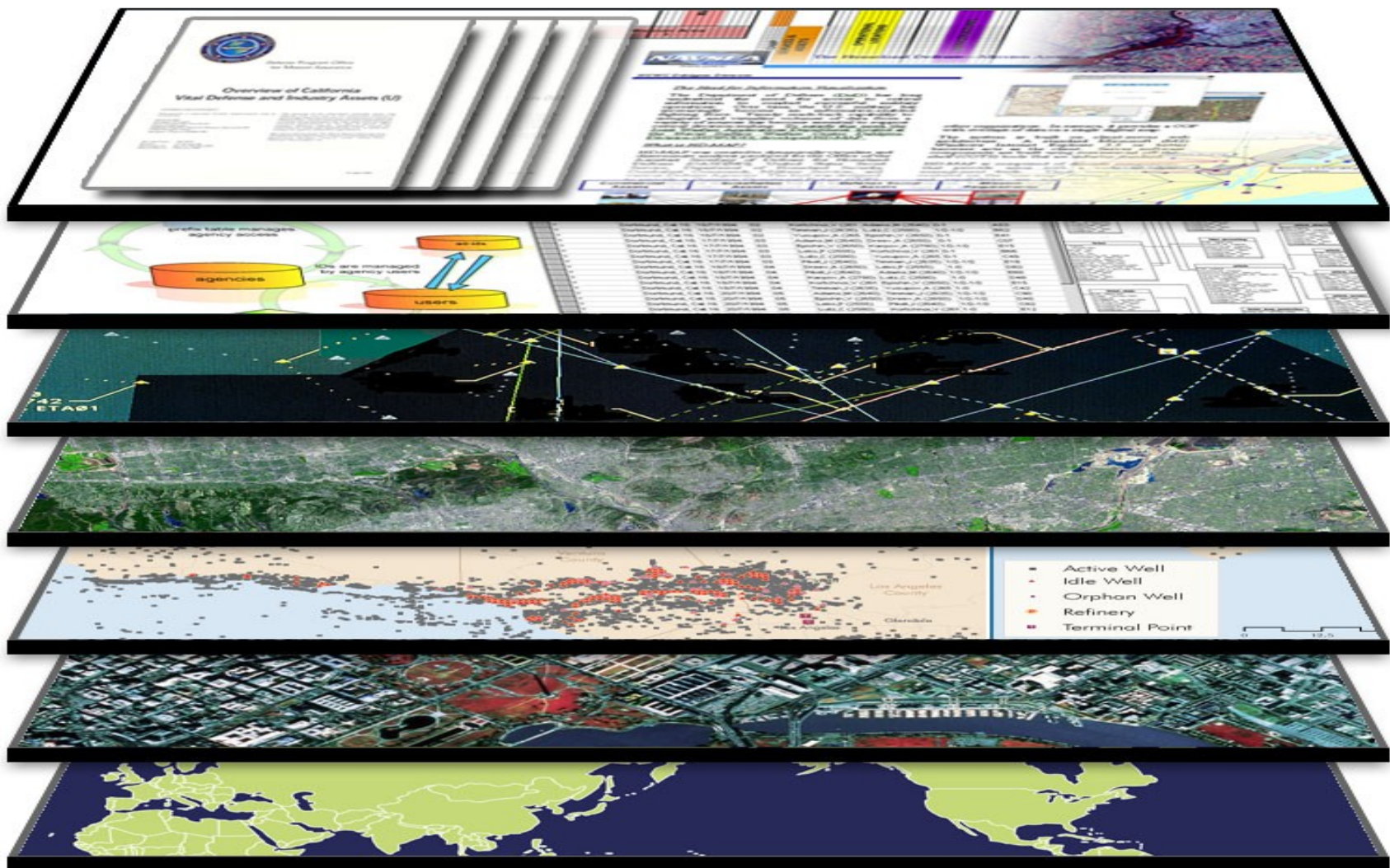


Leveraging RC Resources

- Maritime Partnership Program (MPP)
- Naval Cooperation and Guidance of Shipping (NCAGS)
- Merchant Marine Individual Ready Reserve Group (MMIRRG)



Net-Centric Approach





Navy Program Support

- DoN MDA Prototype Initiative
 - Spiral 1
 - Spiral 2
- USN MDA Capabilities Based Assessment (CBA)
 - OPNAV
- Navy MDA CONOPS
- MHQ – MOC (MDA Equities)



Building the National Maritime Picture

National Maritime Picture



Information, Architecture and

Processes

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QUESTIONS?





BACKUP

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Impact of not supporting....

- Access to information
- Embarrassment in interagency, MSPCC, NSC
- In the face of NMS, this is exact mechanism it calls for: two-faced
- Pressure to move on unclassified sharing models
- Slip back into “Intel Centric” mind sets: bi-lateral
- Navy does not develop/understand White shipping beyond Intel experts
- Architecture does not evolve
- Navy not in a leadership position in MDA capability/requirement definition
 - At national level: pressure increases that impacts Navy bill paying
- Navy matures MDA into Portfolio and maybe program of record:
 - Tight linkage with national level opens door to interagency money/support
- Issue with International Agreements: OGMSA helps communicate/align NCC/COCOM regional vision



National Strategic

Objectives

Promote Global economic security and Prevent hostile or illegal acts within maritime domain

Detect, deter, and defeat maritime threat

Develop World-wide maritime information exchange

GMSA Strategic Objectives

Maximize transparency in the maritime domain

Create MDA Information Hubs

Create MDA Architecture Hub

Desired Effects

Nations seek stability and control in their sovereign waters

Nations want to be regional leaders for information sharing

Nations/Agencies/Entities desire maritime situational awareness

Nations/Agencies/Entities desire to enter collaborative maritime info-sharing relationships

Nations/Agencies/Entities remove policy barriers to info-sharing

Nations/Agencies/Entities develop incentives to participate in info-sharing

Actions

- Promote MDA Architecture - standards & protocols
- Develop / promote info sharing policies
- Promote Information Assurance / Security measures
- Identify policy barriers for removal
- Create open forums to encourage info

- Promote MDA initiatives in International forum
- Monitor implementation of MDA initiatives
- Implement Stakeholder Board Charter
- Create CONOP & Investment Strategy Spirals
- Engage commercial / private sector - info sharing

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NATIONAL MDA - Background

National MDA Summit
May 2004

White = People

Orange = Documents

HSC/NSC Deputies Committees (DCs)

↑ reports to

Maritime Security Policy Coordinating Committee (MSPCC)
2004 - Present
Includes working group (MSWG)

MDA Senior Steering Group (SSG)
Sept 2004 - Sept. 2005

NSPD 41 / HSPD 13 Maritime Security Policy
Published Dec 2004

National Strategy for Maritime Security
Published Sept 2005

ODNI

reports to ↑

Director GMII (OGMII)
July 2006

Dotted line = membership

CNO

CMDT

↑ reports to ↑

Director GMSA (OGMSA)
August 2007

MDA Implementation Team (IT)
Oct 2005 - June 2007
Reported to MSPCC

8 plans

National Plan to Achieve Maritime Domain Awareness
Published Oct 2005

Global Maritime Intelligence Integration Plan
Published July 2005

MDA Stakeholder Board
Nov 2007

GMSA = Global Maritime Situational Awareness

GMII = Global Maritime Intelligence Integration

Slashed line = coordinates

National MDA Study Interagency Investment Strategy (IAIS)
September 2007

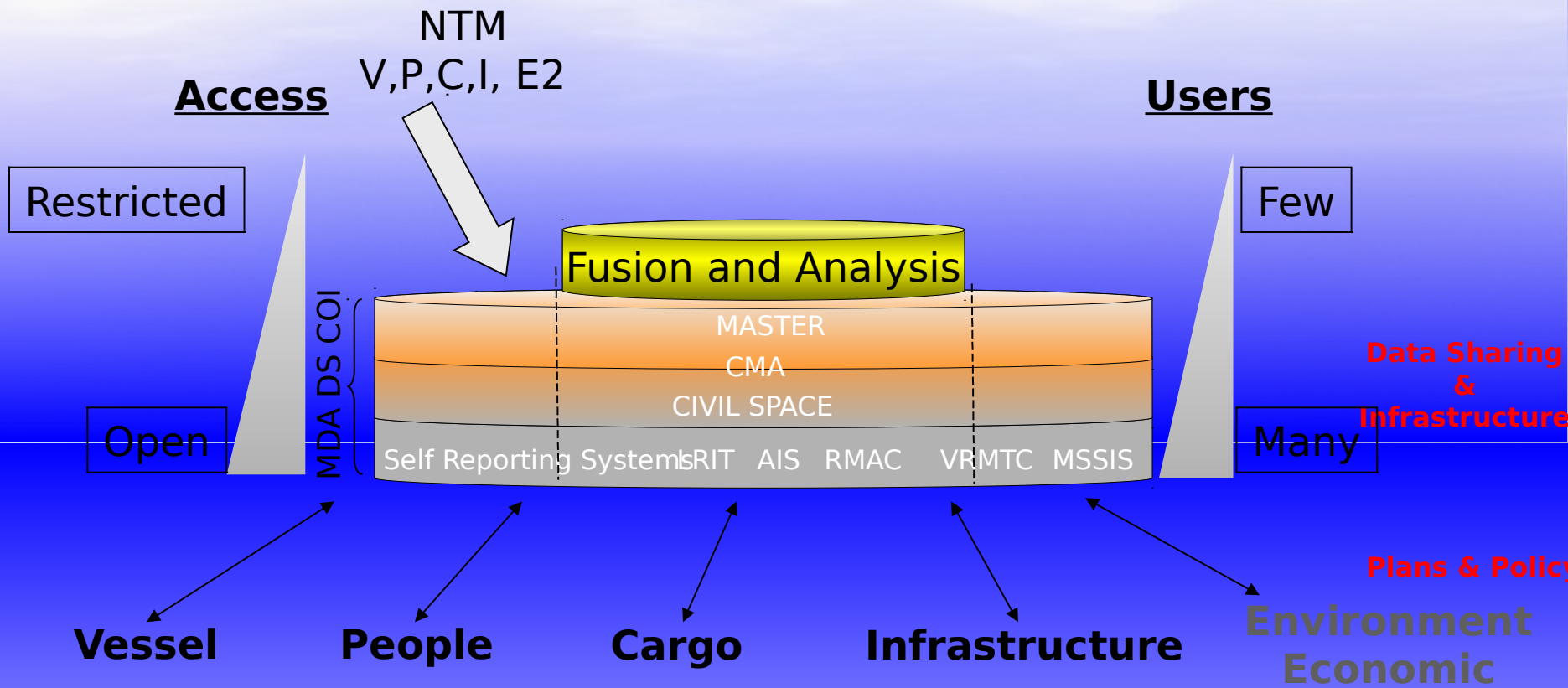
National Concept of Operations (CONOPS) for Maritime Domain Awareness
Approved Aug 2007

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Note: This graphic does not include USCG MDA programs preceding 2004 and continuing - nor the activities of USN or any



Maritime Information Exchange



Global Maritime Community of Interest

Outreach & Coordination



Missi on

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GMII Core Process Elements

- Support policy and decision makers at all levels with maritime intelligence analysis and integration;
- Operate a 24 hour-per-day watch that will, among other things, feed the common intelligence picture to the National Maritime Common operating Picture (NMCOP), and be the intelligence enterprise watch center for Maritime Operational Threat Response (MOTR) support;
- Manage and coordinate the Maritime Domain specific information access and integration;
- Carry out the policy decisions and plans of the Director, Deputy Director, and staff. ONI and ICC will continue to provide operational intelligence support to DOD and DHS components as tasked.



Strategic Objective

Promote Global economic security and Prevent hostile or illegal acts within maritime domain

Detect, deter, and defeat maritime threat

Develop World-wide maritime information exchange

Desired Effects

Nations seek stability and control in their sovereign waters

Nations want to be regional leaders for info-sharing

Nations/Agencies/Entities desire maritime situational awareness

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Nations/Agencies/Entities remove policy barriers to info-sharing

Nations/Agencies/Entities develop incentives to participate in info-sharing

Actions

- Promote MDA Architecture - Stnds & protocols
- Develop / promote info sharing policies
- Promote Information Assurance/Security measures
- Administer Information Enterprise Hubs
- Administer Architecture Hub
- Promote information sharing initiatives

- Promote MDA initiatives in Intl fora
- Monitor implementation of MDA initiatives
- Implement Stakeholder Board Charter
- Create CONOP & Investment Stgy Spirals
- Engage commercial/private sector - info sharing
- Promote "market drivers" to promote info exchange

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Strategic Objectives

1.0 Create MDA Info Enterprise Hubs

Create and ensure the effectiveness of an inter-agency body that:

- identifies and resolves maritime information sharing barriers,**
- and standardizes data to the maximum extent possible**
- at the federal, state, local, and tribal levels.**

2.0 Create MDA Architecture Hub

Create and ensure the effectiveness of an inter-agency body that:

- builds a National Maritime Architecture (UDOP)**
- enables the flow of all information made discoverable by the Information Hubs.**

3.0 Maximize transparency of vessels in the maritime domain:

- Commercial, AIS required, population**
- Non-AIS mandated population**

4.0 Identify and encourage strategies that enhance national Maritime Security,

Safety, and Environment through the use of market drivers.

5.0 - Establish GMSA Office/Staff infrastructure to enable the above



Strategic Contribution

OGMSA Supports and enables.....

A Cooperative Strategy for 21st Century Seapower; Naval Operations Concept; and the Navy Maritime Domain Concept

Core Capabilities

Deterrence: Effective Theater Security Cooperation activities are a form of extended deterrence

Maritime Security: A cooperative approach promoting the rule of law by countering piracy, terrorism, weapons proliferation, drug trafficking, and other illicit activities.

Humanitarian Assistance and Disaster Response: Building on relationships forged in times of calm .. the vanguard of interagency and multinational efforts, both in a deliberate, proactive fashion

“Building partnership capacity will promote regional security and stability through more capable, participatory coalitions and alliances.” [Naval Operations Concept 2006](#)

Implementation

Improve Integration and Interoperability

1. The Sea Services must—and will—work as one wherever they operate in order to defend the United States.
2. New partnerships with the world’s maritime commercial interests and the maritime forces of participating nations

Enhance Awareness

1. ... there must be a significantly increased commitment to advance maritime domain awareness (MDA). Reduce the dangerous anonymity of sea borne transport of people and cargoes.
2. The ability to exchange relevant information across networked military, governmental and private organizations, regardless of nationality ... sharing at the lowest classification level possible offers the highest benefit in terms of gaining trust and substantive cooperation

Prepare Our People Operations require improved mutual understanding of respective service or agency



Maritime Security Data Transfer Overview

- Nearly 17 steps to write one report
 - Sailors manually input data
 - Selected digital photos/scans kept
 - About 76MB collected per boarding
 - ONI sees about 10% of MIO data
- National Agencies

MOC/MHQ

NMIC/ONI

Operational Gap

- Data collection not automated
- Lack of two-way wireless support
- Bandwidth limitations

Operational Gap

- Lack of standardized MIO database
- Inadequate data storage
- Poor collaborative environment
- Bandwidth limitations

Operational Gap

- Poor Collaborative Environment
- Lack of fusion/correlation tools
- Lack of ability to store



The Staffing Package

31 May: CNO guidance: "I approve the 17 in my CNP hat. Get specific words to VADM Harvey."

- Early June:
 - Master package created and routed through all codes for review
 - Package included background on requirement and initial estimate of what people were needed to do perform the functions and tasks
 - Each code responded: comments captured in Tasker package up to CNO
- Late June:
- Comprehensive package compiled and reviewed with N1:
- Package included:
 - 16 Billet Staffing Rationale and OPNAV Code feedback
 - details associated with Flag billet
 - details for ADSW Waiver for RDML Metcalf
 - details for CDR Wimmer Extension (with sanctuary)
 - N1 desented: this was not the way to do these efforts.
 - insisted package be broken into parts and worked separately.
 - N5MDA accommodated and worked in pieces
- July:
- Letter created from CNO to N1 directing that GMSA staffing plan be put together in 30 days.
- - N1 dissented on the letter: didn't like being directed
- - N5MDA reframed the letter to their liking: submitted in tasker system
- - reviewed by VCNO: kicked back to N1 Flag Matters for review
- - lost for several weeks
- - letter re-written by N1
- - finally signed by VCNO in September.
- Status:
- Metcalf Waiver: Approved at SecNav Level Wimmer Extension: Approved: now in A/C status Disposition of Flag/SES position: pending Disposition of 16 billets: pending

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Core Objectives

► Information: Available; Searchable; and Distributable

- **Promote an MDA architecture founded upon net-centric principles; a secure, collaborative, information-sharing environment.**
 - **Architecture Hub**
- **Lead the USG collaborative effort to ensure access to maritime information and data critical to building the situational awareness component of MDA.**
 - **Enterprise Hubs - Vessel, Cargo, People, and Infrastructure**
 - **Develop and formalize information-sharing policies, protocols, and standards.**
- **Facilitate the alignment of resources, capabilities, and activities related to global maritime situational awareness.**

.....to facilitate timely, accurate decision-making.



Core Process

Lead the Federal effort to develop a collaborative, global, information-sharing environment to provide near real-time maritime situational awareness to the Global Maritime Community of Interest (GMCOI).

Advocate for and ensure that the policy and architecture are in place to support the collaborative, global, information-sharing environment.

Work with a broad range of Federal, State, local, tribal, private sector, and international partners to develop the collaborative, global, information-sharing environment.



Maritime Domain Awareness

- *Maritime Domain Awareness is the effective understanding of anything associated with the global maritime domain that could impact the security, safety, economy, or environment of the United States. - National Strategy for Maritime Security*
- *“Maritime Domain Awareness” (MDA) efforts be undertaken “to develop an enhanced capability to identify threats to the Maritime Domain as early and as distant from our shores as possible by integrating intelligence, surveillance, observation, and navigation systems into a common operating picture accessible throughout the United States*



The Value of GMSA

Attributes/ Functions Values	Vessel	People	Cargo	Infrastructure	Architecture
Safety	x	x	x	x	
Security	x	x	x	x	
Environment	x		x	x	
Commerce	x	x	x	x	
Principles					
Inc info sharing		x	x	x	x
x multilaterally					
Increase stability		x	x	x	x
of countries					
No impact to existing systems/agreements	x	x	x	x	x
Focus Areas					
DON Proto-type		x	x	x	
x					
DS COI		x	x	x	x
x					
MSSIS	x				x
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Objective

Promote global economic stability and protect legitimate activities within maritime domain

Detect, deter, and defeat maritime threats

Develop World-wide maritime information exchange

Desired Effects

Nations/Agencies seek stability and control in their sovereign waters

Nations/Agencies desire maritime situational awareness

Nations want to be regional leaders for info-sharing

Nations/Agencies desire to enter collaborative maritime info-sharing relationships

Nations/Agencies remove policy barriers to info-sharing

Nations/Agencies develop incentives to participate in info-sharing regimes

Immediate Challenges / Priorities for OGMSA

- Create Information Enterprise Hubs
- Create MDA Architecture Hub
- Maximize transparency of vessels in the maritime domain
- Implement Stakeholder Board Charter
- Identify and encourage strategies that enhance national maritime security, safety, and environment
- Establish GMSA Office / Staff infrastructure
- Engage commercial / private sector – info sharing

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